

SEQUENCE LISTING

<110> Meulewater, Frank  
Cornelissen, Marc  
Van Eldik, Gerben  
Jacobs, John

<120> Methods and means for delivering inhibitory RNA to  
plants and applications thereof

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<170> PatentIn Ver. 2.0

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<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence:cDNA copy of  
the nucleotide sequence of the genome of TNV-A

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<211> 6395  
<212> DNA  
<213> Artificial Sequence

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<223> Description of Artificial Sequence: cDNA copy of  
the nucleotide sequence of the genome of TMV-U1

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<211> 1245

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: cDNA copy of the nucleotide sequence of the genome of STNV-2

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1245

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<211> 1058

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: cDNA copy of  
the nucleotide sequence of the genome of STMV

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<210> 5

<211> 6355

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: cDNA copy of  
the nucleotide sequence of the genome of TMV-U2

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tataacgatt gtcatatctg gatccaacag ttaaaccatg tgatggtgta tactgtggta 6300  
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<210> 6

<211> 2346

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence : nucleotide sequence of the tomato phytoene desaturase (pds) encoding cDNA

<400> 6

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acaagttcc atttaactct tc当地actcaa cccaaacaaa tttatccct taattgtgca 120  
gaaccactcc ctatatctc taggtgctt cattcggtcc gaggttaagaa aagattttg 180  
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tctgctgtt acttgagagt ccaaggtagt tc当地tttac tttggagctc gaggtcgct 480  
tcttggaa ctgaaagtcg agatggttgc tt当地aaagga attcgatc ttttgc当地gt 540  
agc当地atcaa tgggtcataa gttaaagatt cgtactcccc atgc当地acgac cagaagattg 600  
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tccccaaatag aggggtttta tttagccggt gactacacga aacagaaaata cttggcttca 2040  
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aagaagagtgc cgagggtgaag caagtaggag aaatgtttagg aaagctccta tacaaaagga 2280  
tggcatgttgc aagatttagca tcttttaat cccaaatgttta aatataaagc atattttatg 2340  
gaattc 2346

<210> 7

<211> 7096

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: nucleotide sequence of the tobacco nitrate reductase (nia-2) encoding cDNA

<400> 7

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gaggaccta acttgggttgc ttctgcaaat ttccacccattt cagcccccattt 120  
gagattgatt tagtttagtta taacaatttag ttaaatgcctt gtgtatattt aagaaaat 180  
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aaagaaaattt agaaggaaat tagagttgtt ggagccataa taatgtttaa tgtgaccata 660  
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acttctattt agtttt 7096

<210> 8

<211> 1839

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: nucleotide sequence of the tobacco nitrite reductase (nir-1) encoding cDNA

<400> 8

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tcaagctcca cgcaactccg ccgtctgtgg cagcgccgcc agctggtgct ccagaggttg 120  
ctgctgagag gctagaaccc agagttgagg aaaaagatgg ttattggata ctcaaggagc 180  
agtttagaaa aggataaaat cctcaagaaa aggtcaagat tgagaagcaa cctatgaagt 240  
tgttcatgga aaatggtatt gaagagcttg ctaagatacc cattgaagag atagatcagt 300  
ccaagcttac taaggatgat attgatgtta ggcttaagtg gcttggcctc ttccatagga 360  
gaaagaacca atatggcgg ttcatgatga gattgaagct tccaaatgga gtaacaacga 420  
gtgcacagac tcgatacttg gcgaggtgtga taaggaaata cgggaaagaa ggatgtgctg 480  
atattacaac gaggcaaaat tggcagattc gtggagttgt actgcctgat gtgcccgaga 540  
tactaaaggg actagcagaa gttggggtga ccagttgca gagtggcatg gacaatgtca 600  
ggaatccagt aggaaatcct cttgctggaa ttgatccaga agaaatagta gacacaggc 660  
cttacactaa tttgctctcc caatttatca ctggcaattc acgaggcaat cccgcagttt 720  
ctaacttgcc aaggaagtgg aatccgtcgc tagtaggctc tcatgatctt tatgaacatc 780  
cccatatcaa cgatctcgcg tacatgcctg ccacgaaaga tggacgattt ggattcaacc 840  
tgcttgcggg tgggttcttc agcgaaaaaa gatgtgatga ggcaattcct cttgatgcat 900  
gggttcagc ttagtgcgtt gttccggttt gcaaagcaat actggaagct tttagagatc 960  
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tagaaggatt cagggcagag gtcgagaaga gaatgccaca gcaagagcta gagagagcat 1080  
ctccagagga ctgggttcag aaacaatggg aaagaagaga ttatcttgcgt gtacatccac 1140  
aaaaacaaga aggctacagc ttatggtc ttcacattcc agtgggtcgt gttcaagcag 1200  
acgatatgga ttagctactc cgtttagctg atgagtatgg ttcaggagag atccggctta 1260  
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tgataactga agaggttcaa cggcaagttt cttgacacg gccagtggagg atgcactgga 1500  
caggctgccc gaatacgtgt gcacaagttc aagttgcggc cattggattc atggatgcc 1560  
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taccacttgt tggactta ctgttaaca actttggcgt agttccacga gaaagagaag 1740  
aaacagaaga ctaataaaat tttagaataatgg tggatccatgg gctgtgttca taacatgtaa 1800  
tgtatgataa atcaatgcaa acatttctac ctacgtgag 1839

<210> 9

<211> 1294

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: cDNA of the beta-1,3-glucanase of Nicotiana plumbagenifolia

<400> 9

ttgctttca aatggctgct attatactgc taggattgct tgttccagc actgagatag 60  
taggagctca atcagtaggt gtttgcacg gaatgctggg caacaacttg ccaccagcat 120  
cacaaggtgt acaactgtac aagtcaaaaa acataagaag aatgaggcct tatgatccaa 180  
atcaagcagc tttacaggct ttaagaggct ccaacattga agttatgtta ggagttccca 240  
attcagatct ccaaaaacatt gctgctaacc cctcaaatgc aaataattgg gtccagagga 300  
atgtcagaaa ttctggcca gccgttaaat ttaggtacat tgccgttggaa aatgaagtca 360  
gccctgttaac aggcacatct tcacttaccc gatatcttct tccggccatg aggaacattc 420  
ggaatgcgat ttcttcagca ggtttgc当地 acaatatcaa agtctcaagt tctgttagaca 480  
tgaccttgat tggaaactct tttccaccat cacagggttc gtttaggaac gacgttaggt 540  
cgttcattga tccgatttatt gggtttgtaa ggccgc当地 ttcgc当地 ctcgttaaca 600  
tttacccctta ttttagctat gctggtaatc cgccgc当地 ttctctcccc tatgctctt 660  
tcactgtcc aaatgtggtg gtacaagatg gttcacttgg atatagaaac ttatggatg 720  
caatgtcgg a tgc当地 gctgc当地 ctcgagccgg agggggctcg atagagattg 780  
ttgtgtccga gagtggctgg ccatctgctg ggc当地 cgc当地 aacaatgc当地 840  
caacttacta caagaactta attcagcatg taaaagggg tagtccaaga aggcctaata 900  
aagtcatgttca gaccttta tttgc当地 tgc当地 ttgatgagaa taacaaaaac cctgaattgg 960  
agaaaacattt tggactctt tcccccaaca agcagccaa atatccactc agcttgggt 1020  
tttcagatag atattggac attctgctg aaaataatgc tactgc当地 tctctcataa 1080  
gtgagatgtg ataagagagt tctctt当地 tatcttaca tggatggaaa acttagtacc 1140  
aataactaga ttgtttctt ct当地 tgc当地 tttcttgc当地 atgagagact agtacttgc当地 1200  
ctctgtgtcc ttgtggagag taactagaga caaattaagc aaataacata aataatttag 1260  
tgttgattct qcaatqataa atagaaaaaa aaaa 1294

<210> 10

<211> 720

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: green  
fluorescent protein encoding region

<400> 10

atggtgagca agggcgagga gctgttcacc ggggtggtgc ccattccttgt cgagctggac 60  
ggcgacgtaa acggccacaa gttcagcgtg tccggcgagg gcgagggcga tgccacctac 120  
ggcaagctga ccctgaagtt catctgcacc accggcaagc tgcccgtgcc ctggccacc 180  
ctcgtgacca ccctgaccta cggcgtgcag tgcttcagcc gctaccccgaa ccacatgaag 240  
cagcacgact tcttcaagtc cgccatgccc gaaggctacg tccaggagcg caccatcttc 300  
ttcaaggacg acggcaacta caagacccgc gccgaggtga agttcgaggg cgacacctg 360  
gtgaaccgca tcgagctgaa gggcatcgac ttcaaggagg acggcaacat cctggggcac 420  
aagctggagt acaactacaa cagccacaac gtctatatca tggccgacaa gcagaagaac 480  
ggcatcaagg tgaacttcaa gatccgcccc aacatcgagg acggcagcgt gcagctcgcc 540  
gaccacttacc agcagaacac ccccatcggc gacggccccg tgctgctgcc cgacaaccac 600  
tacctgagca cccagtcgc cctgagcaaa gaccccaacg agaagcgcga tcacatggtc 660  
ctgctggagt tcgtgaccgc cgccgggatc actctcggtca tggacgagct gtacaagtaa 720

<210> 11

<211> 1809

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial

Sequence:beta-glucuronidase encoding region

<400> 11

atggtccgtc ctgtagaaac cccaaccgt gaaatcaaaa aactcgacgg cctgtggca 60  
ttcagtctgg atcgcgaaaaa ctgtgaatt gatcagcggtt ggtggggaaag cgcgttacaa 120  
gaaagccggg caattgctgt gccaggcagt tttaacgatc agttcgccga tgcagatatt 180  
cgtaattatg cggcaacgt ctggtatcag cgcgaaatct ttataccgaa aggttggca 240  
ggccagcgta tcgtgctgctt ttcgatgcg gtcactcatt acggcaaagt gtgggtcaat 300  
aatcaggaag ttagggagca tcagggcggc tatacgccat ttgaagccga tgtcacgccc 360  
tatgttattt ccgggaaaag tgtacgtatc accgtttgtt tgaacaacga actgaactgg 420  
cagactatcc cggccggaaat ggtgattacc gacgaaaacg gcaagaaaaa gcagtcttac 480  
ttccatgatt tctttaacta tgccggaatc catcgacgcg taatgctcta caccacgccc 540  
aacacctggg tggacgatat caccgtgggt acgcgtgcg cgcaagactg taaccacgccc 600  
tctgttactt ggcagggtggt ggcataatggt gatgtcagcg ttgaactgcg tgatgcggat 660  
caacagggtgg ttgcaactgg acaaggactt agcgggactt tgcaagtggt gaatccgcac 720  
ctctggcaac cgggtgaagg ttatctctat gaaactgtgcg tcacagccaa aagccagaca 780  
gagtgtata tctacccgct tcgcgtcggc atccggtcag tggcagtgaa gggcgaacag 840  
ttcctgatta accacaaacc gttctacttt actggcttg tgcgtcatga agatgcggac 900  
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gcagatgaac atggcatcgt ggtgattgtat gaaactgtgcg ctgtcggtt taacctctct 1080  
ttaggcattt gttcgaagc gggcaacaag ccgaaagaac tgtacagcga agaggcagtc 1140  
aacggggaaa ctcagcaacg gcacttacag gcgattaaag agctgatagc gcgtgacaaa 1200  
aaccacccaa gcgtgggtat gtggaggatt gccaacgaac cggataccgc tccgcaagtgc 1260  
cacgggaaata tttcgccact ggcggaaagca acgcgtaaac tcgacccgac gcgtccgatc 1320  
acctgcgtca atgtaatgtt ctgcgtcgtt cacaccgata ccattcagcga tcttttgat 1380  
gtgctgtgcc tgaaccgttta ttacggatgg tatgtccaaa gggcgattt ggaaacggca 1440  
gagaaggtaa tgaaaaaaaacttctggcc tggcaggaga aactgcata gccgattttc 1500  
atcaccgaat acggcgtgga tacgttagcc gggctgcact caatgtacac cgacatgtgg 1560  
agtgaagagt atcagtgtgc atggctggat atgtatcacc gcgtctttga tcgcgtcagc 1620  
gccgtcgatcg gtgaacaggt atgaaatttc gcccgttttgcgacccgcgca aggcataattt 1680  
cgcggtggcg gtaacaagaa agggatcttcaactcgac gcaaaccgaa gtcggcggct 1740  
tttctgtgc aaaaacgctg gactggcatg aacttcgggtt aaaaaccgca gcagggaggc 1800  
aaacaatga 1809

<210> 12

<211> 411

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: cDNA copy of  
part of the region of a TMV-U2 variant comprising

the origin of assembly

<400> 12  
ccctcgccaa ttgaactcac tgaaaaagtt gttgatgagt tcgttagatga agtaccgatg 60  
gctgtgaaaac tcgaaaagggtt ccggaaaaca aaaaagagag tggtaggtaa taatgttaat 120  
aataagaaaa taaaataatag tggtaagaag ggtttggaaag ttgaggaaat tgaggataat 180  
gtaaatgtat acgagtctat cgcgtcatcg agtacgttt aatcaatatg ccttatacaa 240  
tcaactctcc gagccaattt gtttacttaa gttccgctta tgcagatcct gtgcagctga 300  
tcaatctgtg tacaatgca ttaggtaacc agtttcaaac gcaacaagct aggacaacag 360  
tccaacagca atttgcggat gcctggaaac ctgtgcctag tatgacagtga 411

<210> 13

<211> 198

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: cDNA copy of  
STMV leader region

<400> 13

agaaaaactt accaatcaaa agacctaacc aacaggactg tcgtggcat ttatgctgtt 60  
gggggacata gggggaaaac atattgcctt cttctacaag aggccttcag tcgccataat 120  
tacttggcgc ccaattttgg gtttcagttg ctgtttccag ctatggggag aggttaagggtt 180  
aaaccaaaacc gtaaaatcg 198

<210> 14

<211> 455

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:cDNA copy of  
STMV trailer region

<400> 14

gacaagtcgc cttggttatt tcgtgttgtt ttaactgaac ctcgacataa gcctttgg 60  
tcgaaggta aacgatccgc tcctcgctt agcttgaggc ggcgtatctc ttatgtcaac 120  
agagacactt tggcttatgg ttgtataaca atagatagac tcccgtttgc aagattaggg 180  
ttaacagatc ttgccgttag tctggtagc gcgttaaccgg cttgattta tgaaatagat 240  
ccattgtcca atggcttgc caatgaaacg ccgacgtggc tgtataatac gtcgttgaca 300  
agtacgaaat cttgttagt tttttccctc cacttaaatc gaagggtttt gttttggct 360  
tcccgaacgc atacgttagt gtgactaccg ttgttcgaaa caagtaaaac aggaaggggg 420  
ttcgaatccc tccctaaccg cgggttaagcg gccca 455

<210> 15

<211> 1971

<212> DNA

~~<213> Artificial Sequence~~

~~<220>~~

~~<223> Description of Artificial Sequence: cDNA copy of part of the genome of a TMV-U1 variant, comprising MP and CP genes~~

~~<400> 15~~

ggaaacactg tgattatagc tgcgttttgc gcctcgatgc ttccgatgga gaaaataatc 60  
aaaggagcc tttgtggta cgatagtctg ctgtactttc caaagggttg tgagttccg 120  
gatgtgcac actcccgcaa tcttatgtgg aattttgaag caaaactgtt taaaaaacag 180  
tatggatact tttcgaaag gtatgtata catcacgaca gaggatgcat tttgttattac 240  
gatccccctaa agttgtatctc gaaaccttgtt gctaaacaca tcaaggattt ggaacacttg 300  
gaggagttca gaagggtctt ttgtgtatgtt gctgtttcg tgaacaattt tgcgttattac 360  
acacagttgg acgacgctgt atgggagggtt cataagaccg cccctccagg ttcgtttgtt 420  
tataaaatgtc tggtaagttt tttgtctgtat aaagttcttt ttagaaagttt gttttagat 480  
ggctctagtt gttaaaggaa aagtgaatat caatgagttt atcgacctga caaaaatgga 540  
gaagatctt ccgtcgatgt ttacccctgt aaagagtgtc atgtgttcca aagttgataa 600  
aataatgtt catgagaatg agtcattgtc agaggtaaac cttctcaaag gagttaaagct 660  
tattgatagt ggatacgtct gtttagccgg tttggtcgtc acgggcgagt ggaacttgcc 720  
tgacaattgc agaggagggtg tgagcggtg tctgggtggac aaaaggatgg aaagagccga 780  
cgaggccact ctccggatctt actacacagc agctgcaaaag aaaagatttca agttcaaggt 840  
cgttcccaat tatgtataa ccacccagga cgcgtatggaa aacgtctggc aagtttttagt 900  
caatattaga aatgtaaaga tgtcagcggg tttctgtccg ctttctctgg agttgtgtc 960  
gggtgttatac gttttagaa ataataaaaa attaggtttt agagagaaga tcacaagtgt 1020  
gagagatgga gggcccatgg aacttacaga agaagttttt gatgagttca tggaaagatgt 1080  
ccctatgtca atcaggcttgc caaagttcg atctcgaaacc ggaaaaaaaga gtgatgtccg 1140  
taaaggggaaa attagtagta gtgatcggtc agcgccgaac aagaactata gaaatgtttaa 1200  
ggattttgga ggaatgagtt taaaaaaagaa taatttaatc gatgatgatt cggagactac 1260  
tgtcgccgaa tcggattcg tttaaatatg tcttacagta tcactactcc atctcagttc 1320  
gtgttctgt cagcagcgtg ggccgaccac atagagttaa ttaattttatg tactaatgcc 1380  
ttagggaaatc agtttcaaaac acaacaagct cgaactgtcg ttcaaaagaca attcagtgag 1440  
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gtttggaaact ctggccctgc aacttgaggt agtcaagatg cataataaaat aacggattgt 1800  
gtccgtatc acacgtgggtc cgtacgataa cgcatagtgt tttccctcc acttaaaatcg 1860  
aagggttggta tcttggatcg cgcgggtcaa atgtatatgg ttcatataca tccgcaggca 1920  
cgtaataaaag cgaggggttc gaatcccccc gttacccccc gtagggccca 1971